

**WHAT IS CLAIMED IS:**

1. A method for deuteration of a heterocyclic ring, which comprises subjecting a compound having a heterocyclic ring to a sealed refluxing state in a deuterated solvent in the presence of an activated catalyst selected from a palladium catalyst, a platinum catalyst, a rhodium catalyst, a ruthenium catalyst, a nickel catalyst and a cobalt catalyst.
2. The method for deuteration according to claim 1, wherein the activated catalyst selected from a palladium catalyst, a platinum catalyst, a rhodium catalyst, a ruthenium catalyst, a nickel catalyst and a cobalt catalyst is one comprising an activated palladium catalyst.
3. The method for deuteration according to claim 2, wherein the activated palladium catalyst is an activated palladium carbon.
4. The method for deuteration according to any one of claims 1 to 3, wherein the activated catalyst selected from a palladium catalyst, a platinum catalyst, a rhodium catalyst, a ruthenium catalyst, a nickel catalyst and a cobalt catalyst is one activated with hydrogen gas or heavy hydrogen gas present in a deuteration reaction system.
5. The method for deuteration according to any one of claims 1 to 4, wherein the deuterated solvent is heavy water ( $D_2O$ ).
6. The method for deuteration according to any one of claims 1 to 5, wherein the heterocyclic ring of the compound having a heterocyclic ring is a 3 to 20 membered ring.